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09/899,431	07/03/2001	David Berque	31065-5	3365
7590	03/25/2005		EXAMINER	
Woodard, Emhardt, Naughton, Moriarty and McNett Bank One Center/Tower Suite 3700 111 Monument Circle Indianapolis, IN 46204-5137			THERIAULT, STEVEN B	
			ART UNIT	PAPER NUMBER
			2179	
DATE MAILED: 03/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/899,431	BERQUE, DAVID
	Examiner	Art Unit
	Steven B. Theriault	2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 July 2001.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-124 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 33,36,38,39,40,54,57,60,61,73,76,77,79,80,88,94-96,102 and 105-107 is/are allowed.
- 6) Claim(s) See Continuation Sheet is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 March 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/05/2002.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_



BA HUYNH  
PRIMARY EXAMINER

Continuation of Disposition of Claims: Claims rejected are 1-32,34,35,37,40-53,55,56,58,59,62-72,74,75,78,81-87,89-93,97-101,103,104 and 108-124.

#### **DETAILED ACTION**

1. This action is responsive to the following communications: The original application filed on 07/03/2001 with a priority of 12/21/2000 and an information disclosure statement filed on 09/05/2002.
2. Claims 1-124 are pending in the case. Claims 1, 14, 15, 16, 41, 62, 81, 97, and 108 are the independent claims.

Applicant's attention is directed to the fact that a new examiner has been assigned to this case. The Examiner's name and telephone number are provided below.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 8, 112, 118 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 8, 112, and 118 the phrase "practically infinite" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The examiner suggests amending the claims to include a more definite range. The phrase "infinite" is indefinite as to know whether there are 100 or 1 billion and beyond panels in the display.

#### ***Claim Rejections - 35 USC § 102***

5. **The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-4, 10-11, 13, 16, 19-22, 27-29, 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton et al (hereinafter Hamilton) U.S. Patent No. 5,176,520 issued Jan. 5, 1993, and filed Apr. 17, 1990.**

In regard to **Independent claim 1**, Hamilton teaches a [*system for knowledge transfer in a group setting, the system comprising:*]

- A plurality of participant work areas, each having at least one corresponding participant input-device, and each of the participant input-devices being adapted to define participant images that are then included on the corresponding participant work area; (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.
- A moderator work area, comprising at least one moderator input-device, the at least one moderator input-device being adapted to define moderator images that are then included on the moderator work area and to select moderator images that are then simultaneously included on each of plurality of participant work areas; (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines.
- Wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area. (Hamilton column 3, lines 45-67) Hamilton teaches the teacher can share an image

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sent to the teacher workstation from a student's workstation with two or more workstations within the group.

With respect to **dependent claim 2**, Hamilton teaches the [system where the moderator input-device selects moderator images that are then simultaneously included on each of the plurality of participant work areas when the moderator has finished defining it.] (Hamilton column 3, lines 15-25 and lines 47-65) Hamilton teaches the simultaneous appearance of images on the workstations of the participants after the teacher sends it.

With respect to **dependent claim 3**, Hamilton teaches the [system comprising a plurality of display elements adapted to display the moderator work area and the plurality of participant work areas.] (Hamilton column 6, lines 10-25) Hamilton teaches an icon, which is a display element, exists for each participant on the teacher's workstation area.

With respect to **dependent claim 4**, Hamilton teaches the [system where the plurality of display elements are substantially located to permit a user to simultaneously view one of the display elements and hear substantially every other user that is viewing another of the display elements.] (Hamilton Figure 1) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

With respect to **dependent claim 10**, Hamilton teaches the [system where the input-devices are adapted to define the images by creating text objects and draw objects corresponding to the images.](Hamilton figure 3a) Hamilton teaches a system that accepts input from a keyboard or a stylus pen, which can create text or draw objects.

With respect to **dependent claim 11**, Hamilton teaches the system [wherein the input-devices are further adapted to define the images by creating erase objects] (Hamilton figure 5c and

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column 13, lines 42-67) Hamilton teaches an eraser mode and the restoring of images after the erase event has occurred.

With respect to **dependent claim 13**, Hamilton teaches the [system where additional participant work areas can be created and added to the system while the system is in operation.] (Hamilton column 11, lines 60-67 and figure 5b) Hamilton teaches that new users can be logged onto the system while it is running.

In regard to **Independent claim 16**, Hamilton teaches a network of computers programmed for knowledge transfer in a group setting, the network comprising:

- *A plurality of participant workstations, each programmed to provide a participant work area and having at least one corresponding participant input-device, and each of the participant input-devices being adapted to create data structures defining participant images that are then included in the participant work area; (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.*
- *A moderator workstation, programmed to provide a moderator work area and comprising at least one moderator input-device, the at least one moderator input-device being adapted to: create data structures defining moderator images that are then included in the moderator work area, and to select moderator images that are then simultaneously included on each of plurality of participant work areas; (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines.*

- *Wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area.* (Hamilton column 3, lines 45-67) Hamilton teaches the teacher can share an image sent to the teacher workstation from a student's workstation with two or more workstations within the group.

With respect to **dependent claim 19**, Hamilton teaches [where the network can be used in a group mode and a standalone mode.] (Hamilton column 5, lines 33-42) Hamilton teaches an alternative configuration where the participant terminals are not computers and all of the processing is done solely in the teacher's computer.

With respect to **dependent claim 20**, Hamilton teaches [*the network where the workstations are located such that a first user positioned to use a workstation and a second user positioned to use a different workstation can hear each other speak.*] (Hamilton Figure 1) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

With respect to **dependent claim 21**, Hamilton teaches [*the network where every user positioned to use a workstation can hear every other user positioned to use any other workstation.*] (Hamilton Figure 1) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

With respect to **dependent claim 22**, Hamilton teaches [*the network where no user positioned to use a workstation can hear any other user positioned to use a different workstation.*] (Hamilton column 7, lines 1-15 and Figure 3B) Hamilton teaches the computer stations are connected via a network, which can allow for the stations to not be collocated in the same room and allow for the

users to hear one another.

With respect to **dependent claim 27, 28 and 29**, Hamilton teaches [*the network where images placed on a participant's work area at a participant workstation may be viewed only at that workstation unless that participant decides to permit them to be viewed from another workstation and where a participant can implement a decision to permit an image placed on a participant work area to be viewed at another workstation by setting a flag*] (Hamilton column 10, lines 43-54)

Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claim 30-32**, Hamilton teaches [*the network further comprising collision-correction functionality; that permits toggling between a plurality of view modes; and relocation of images on the participant work area.*] (Hamilton column 6, lines 10-25) Hamilton teaches that each student workstation is represented by an icon on the teacher workstation. The teacher can toggle between other users or back to the teacher's own area. Hamilton also teaches the users are working on an image and the changes are appearing simultaneously. If an image so overlapped the user can manually relocate the image to another location. The collision correction functionality would be performed by the user or teacher as they can see the obvious overlap simultaneously (Hamilton column 3, lines 47-67).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be

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patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 5, 12, 34, 35, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al (hereinafter Hamilton) U.S. Patent No. 5,176,520 issued Jan. 5, 1993, and filed Apr. 17, 1990, and in view of Smith et al (hereinafter Smith) U.S. Patent No. 5,107,443 issued Apr. 21, 1992, and filed Sept. 7, 1988.**

With respect to **dependent claim 5**, as indicated in the above discussion, Hamilton teaches every element of claim 4.

Hamilton fails to expressly disclose/teach the [*system where the user hears substantially every other user through a form of audio transmission.*]

Smith teaches a collaborative system that allows users to communicate in real time (column 7, lines 22-35) in which, video and audio transmissions occur (column 25, lines 10-17 and column 26, lines 1-17), for the purpose of providing familiar cues during the creation process. Smith and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Smith and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the audio and video of Smith, in order to obtain a system that is able to provide real time communications of users that are not within the general proximity to a user. One would have been motivated to make such a combination because of the applicability of the Smith system to any shared window system or any other shared workspace system (column 26, lines 1-17) as taught by Smith.

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With respect to **dependent claim 12**, as indicated in the above discussion, Hamilton teaches every element of claim 10.

Hamilton fails to expressly disclose/teach the [*system where the input-devices are further adapted to define the images by creating bitmap objects.*]

Smith teaches a collaborative system that allows users to communicate in real time (column 7, lines 22-35) in which, bitmap objects are created and stored (figure 6a and column 15, lines 38-67), for the purpose of providing a model for displaying objects in a shared space. Smith and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Smith and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the bitmap objects of Smith, in order to obtain a system that is able to provide objects in a display that are of a bitmap type that can be shared. One would have been motivated to make such a combination because of the applicability of the Smith system to any shared window system or any other shared workspace system (column 26, lines 1-17) as taught by Smith.

With respect to **dependent claim 34, 35 and 37**, as indicated in the above discussion, Hamilton teaches/discloses every element of claim 16.

Hamilton fails to expressly teach/disclose [*the network comprising collision-avoidance functionality that comprises a margin that does not have a corresponding location of the shared work area; and where the participant work area comprises a participant public work area and a private work area, wherein images placed on the participant's public work area are generally displayed superimposed on images on the shared work area.*]

Smith teaches a collaborative system that allows users to communicate in real time (column 7, lines 22-35) in which, the work area is comprised of public and private work areas and

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each object has access privileges with different levels, for the purpose of providing a mechanism for displaying objects in a shared space that do not allow users to move or put objects over the controlled object space without access rights (Smith column 10, lines 1-67 and column 11, lines 1- 20). Smith also shows an area controlled by a user that are not private by have limited access rights to certain users which is in effect a margin area that prevents others from putting images within the space but the area is still visible to everyone (Smith figure 9a and 9b and column 19, lines 18-51). Smith and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Smith and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the access right of Smith, in order to obtain a system that is able to provide objects in a display that are not overlapped with another users image. One would have been motivated to make such a combination because of the applicability of the Smith system to any shared window system or any other shared workspace system (column 26, lines 1- 17) as taught by Smith.

9. Claims 6-9, 15, 17, 18, 23, 24, 41-45, 46, 48-53, 62-65, 67-72, 81-87, 97-101, 108-124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al (hereinafter Hamilton) U.S. Patent No. 5,176,520 issued Jan. 5, 1993, and filed Apr. 17, 1990, and in view of McArdle et al (hereinafter McArdle) U.S. Patent No. 5,859,974 issued Jan. 12, 1999, and filed June 8, 1996.

With respect to **dependent claim 6, 7, 8 and 9**, as indicated in the above discussion, Hamilton teaches every element of claim 3.

Hamilton fails to expressly disclose/teach the [system where the work areas are permitted to have a size exceeding that which can be displayed on the display elements and a

*where the work areas comprise at least one scroll and where each scroll comprises a set of practically infinite scrollable panels and where the work areas can be stored as a single computer file, and wherein previously-saved files can be imported into a work area]*

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also discloses a tab pane associated with the private and public areas in the GUI. A tab is created for each window. The number of tabs that can be entered is limited only by the application. McArdle also teaches the meeting information is stored in a file and can be retrieved at a later date from the storage device (McArdle column 9, lines 25-37). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle.

In regard to **Independent claim 15**, Hamilton teaches [*a system for knowledge transfer in a group setting, the system comprising a plurality of work areas, each comprising a public scroll and a private scroll, and wherein one of the plurality of work areas is a moderator work area.*] Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines.

Hamilton fails to expressly disclose:

- Each area comprising a public scroll and a private scroll

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle.

With respect to **dependent claim 17**, as indicated in the above discussion, Hamilton discloses/teaches every element of claim 16.

Hamilton fails to expressly disclose [*the network where the moderator work area comprises a shared work area and a moderator private work area, and each participant work area comprises a participant public work area and a private work area.*]

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface (McArdle figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the teacher system of Hamilton to incorporate the private and public areas for the participant of McArdle, in order to obtain a system that is able to provide a user with private and public areas of the display. One would have been motivated to make such a combination to provide the ability allow each user whether a teacher or participant to have an area that is shared and an area that is not shared as taught by McArdle.

With respect to **dependent claim 18**, Hamilton teaches the [network of where each participant's work station displays images placed on the shared work area superimposed on images placed in that participant's public work area.] (Hamilton column 3, lines 1-67) Hamilton teaches the process of teaches selecting an image and sending to a participant. The teacher decides which participant. Once the teacher sends the image, the image is in the participant's public workspace and new images are superimposed or added to the current picture.

With respect to **dependent claim 23, 24, 45, 46, 64 and 65** as indicated from the above discussion, Hamilton teaches every element of claim 16.

Hamilton fails to expressly teach/disclose [*the network where images are organized in notebook data structures comprising at least one panel and with at least one object in a single panel*].

McArdle discloses a process of storing a plurality of pages that contain annotations within a list of pages in a file (McArdle figures 10-22). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the teacher system of Hamilton to incorporate the storage of page information with annotations of

McArdle, in order to obtain a system that is able to provide a user with a page by page description of the meeting event. One would have been motivated to make such a combination to provide the user with a list of pages containing graphic, text and drawing annotations in the order they happen as taught by McArdle.

In regard to **Independent claim 41**, Hamilton teaches a *network of computers programmed for knowledge transfer in a group setting, the network comprising:*

- *A plurality of participant workstations, each programmed to provide a participant work area and having at least one corresponding participant input-device, and each of the participant input-devices being adapted to create data structures defining participant images that are then included on the participant work area; (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.*
- *A moderator workstation, programmed to provide a moderator work area and comprising at least one moderator input-device, the at least one moderator input-device being adapted to: create data structures defining moderator images that are then included on the moderator work area, and select moderator images that are then simultaneously included on each of plurality of participant work areas; (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines.*
- *Wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area. (Hamilton column 3, lines 45-67) Hamilton teaches the teacher can share an image sent to the teacher workstation from a student's workstation with two or more workstations within the group.*

Hamilton fails to expressly disclose:

- Wherein the moderator work area comprises a moderator **public scroll and a moderator private scroll**, and each participant work area comprises a **participant public scroll and a participant private scroll**;
- Wherein each participant workstation displays images placed on the participant's public scroll by the moderator superimposed on images placed on the participant's public scroll by the participant; and

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also shows that the scroll can be used to scroll through just the private tab areas and the private areas. The tabs represent a set of pages that are shared by one user to all users, which can incorporate links to other pages such as the moderator pages (McArdle figure 10-22). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle.

With respect to **dependent claim 42**, Hamilton teaches the [*network where the network can be used in a group mode and a standalone mode.*] (Hamilton column 5, lines 33-42) Hamilton teaches an alternative configuration where the participant terminals are not computers and all of

the processing is done solely in the teacher's computer.

With respect to **dependent claim 43**, Hamilton teaches the [network where the workstations are located such that a first user positioned to use a workstation and a second user positioned to use a different workstation can hear each other speak.] (Hamilton Figure 1) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

With respect to **dependent claim 44**, Hamilton teaches the [*network where every user positioned to use a workstation can hear every other user positioned to use any other workstation.*] (Hamilton Figure 1) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

With respect to **dependent claim 48**, Hamilton teaches the [*network where images placed on a participant work area at a participant workstation may be viewed only at that workstation unless a participant decides to permit them to be viewed from another workstation.*] (Hamilton column 10, lines 43-54) Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claims 49 and 50**, Hamilton teaches the [*network where a participant can implement a decision to permit an image placed on a participant work area to be viewed at another workstation by setting a flag.*] (Hamilton column 10, lines 43-54) Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claims 51-53**, Hamilton teaches [the network further comprising collision-correction functionality; that permits toggling between a plurality of view modes; and relocation of images on the participant work area.] (Hamilton column 6, lines 10-25) Hamilton teaches that each student workstation is represented by an icon on the teacher workstation. The teacher can toggle between other users or back to the teacher's own area. Hamilton also teaches the users are working on an image and the changes are appearing simultaneously. If an image so overlapped the user can manually relocate the image to another location. The collision correction functionality would be performed by the user or teacher as they can see the obvious overlap simultaneously (Hamilton column 3, lines 47-67).

In regard to **Independent claim 62**, Hamilton teaches a *network of computers programmed for knowledge transfer in a group setting, the network comprising:*

- *A plurality of participant workstations, each programmed to provide a participant work area and having at least one corresponding participant input-device, each of the participant input-devices being adapted to create data structures defining participant images that are then included on the participant work area;* (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.
- *A moderator workstation, programmed to provide a moderator work area and comprising at least one moderator input-device, the at least one moderator input-device being adapted to: create data structures defining moderator images that are then included on the moderator work area, and to select moderator images that are then simultaneously included on each of plurality of participant work areas;* (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton

also teaches that the teacher can select which user to share images with all or a subset of the participant machines.

- *Wherein each participant work station displays images placed on the shared work area superimposed on images placed on the participant public work area;*
- *Wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area wherein the network can be used in a group mode and a standalone mode; and* (Hamilton Figure 1 and column 3, lines 1-67) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas. Hamilton also teaches the students send information to the teacher, which can then be shared with other students or the entire group.
- *Wherein the workstations are located such that a first user positioned to use a workstation and a second user positioned to use a different workstation can hear each other speak.* (Hamilton Figure 1) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

Hamilton fails to expressly disclose:

- *Wherein the moderator work area comprises a **shared work area and a moderator private work area**, and each participant work area comprises a participant public work area and a participant private work area;*

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also shows that the scroll can be used to scroll through just the private tab areas and the private areas. The tabs represent a set of pages that are shared by one user to all users, which can incorporate links to other pages such as the moderator pages (McArdle figure 10-22). McArdle and Hamilton are analogous

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art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle

With respect to **dependent claim 63**, Hamilton teaches [*the network of wherein every user positioned to use a workstation can hear every other user positioned to use any other workstation.*] (*Hamilton Figure 1*) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas.

With respect to **dependent claim 67**, Hamilton teaches the [*network where images placed on a participant work area at a participant workstation may be viewed only at that workstation unless a participant decides to permit it to be viewed from another workstation.*] (*Hamilton column 10, lines 43-54*) Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claim 68 and 69**, Hamilton teaches the [*network where a participant can implement a decision to permit an image placed on a participant work area to be viewed at another workstation by setting a flag and where a participant can implement a decision to permit an image placed on a participant work area to be viewed at another workstation by actively causing information corresponding to the image to be transmitted to another workstation.*]

(Hamilton column 10, lines 43-54) Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claims 70-72**, Hamilton teaches the [*network further comprising collision-correction functionality and permitting toggling between a plurality of view modes and relocation of images on the participant work area.*] (Hamilton column 6, lines 10-25) Hamilton teaches that each student workstation is represented by an icon on the teacher workstation. The teacher can toggle between other users or back to the teacher's own area. Hamilton also teaches the users are working on an image and the changes are appearing simultaneously. If an image so overlapped the user can manually relocate the image to another location. The collision correction functionality would be performed by the user or teacher as they can see the obvious overlap simultaneously (Hamilton column 3, lines 47-67).

In regard to **Independent claim 81**, Hamilton teaches a *network of computers programmed for knowledge transfer in a group setting, the network comprising:*

- *A plurality of participant workstations, each programmed to provide a participant work area and having at least one corresponding participant input-device, each of the participant input-devices being adapted to create data structures defining participant images that are then included on the participant work area;* (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.
- *A moderator workstation, programmed to provide a moderator work area and comprising at least one moderator input-device, the at least one moderator input-device being adapted to: create data structures defining moderator images that are then included on*

*the moderator work area, and to select moderator images that are then simultaneously included on each of the plurality of participant work areas; (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines.*

- *Wherein each participant workstation displays images placed on the shared work area by the moderator superimposed on images placed in the participant public work area; wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area; (Hamilton Figure 1 and column 3, lines 1-67) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas. Hamilton also teaches the students send information to the teacher, which can then be shared with other students or the entire group.*
- *Wherein the network can be used in a group mode and a standalone mode; wherein every user positioned to use a workstation can hear every other user positioned to use any other workstation; and (Hamilton column 5, lines 33-42) Hamilton teaches an alternative configuration where the participant terminals are not computers and all of the processing is done solely in the teachers computer. Hamilton also teaches the group setting in which each user can discuss openly the meeting with every other participant.*

Hamilton fails to expressly disclose:

- *Wherein the moderator work area comprises a shared work area and a moderator private work area, and each participant work area comprises a participant public work area and a participant private work area;*
- *Wherein data structures defining the images are organized in notebook files comprising at least one panel and are stored as at least one object in a single panel.*

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McArdle discloses a process of storing a plurality of pages that contain annotations within a list of pages in a file (McArdle figures 10-22). McArdle also teaches the public and private work areas for each user on the system (Figure 4). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the teacher system of Hamilton to incorporate the shard and private areas and tab pages for storing information with annotations of McArdle, in order to obtain a system that is able to provide a user with a page by page description of the meeting event. One would have been motivated to make such a combination to provide the user with a list of pages containing graphic, text and drawing annotations in the order they happen as taught by McArdle.

With respect to **dependent claim 82-84**, Hamilton teaches the [*network where images placed on a participant work area may be viewed only at that workstation unless a participant decides to permit them to be viewed from another workstation by setting a flag and transmitting the information to the other station.*] (Hamilton column 10, lines 43-54) Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claims 85-87**, Hamilton teaches [the network further comprising collision-correction functionality; that permits toggling between a plurality of view modes and relocation of images on the participant work area.] (Hamilton column 6, lines 10-25) Hamilton teaches that each student workstation is represented by an icon on the teacher workstation. The teacher can toggle between other users or back to the teacher's own area. Hamilton also teaches the users are working on an image and the changes are appearing simultaneously. If an image so

overlapped the user can manually relocate the image to another location. The collision correction functionality would be performed by the user or teacher as they can see the obvious overlap instantaneously (Hamilton column 3, lines 47-67).

In regard to **Independent claim 97**, Hamilton teaches a network of computers programmed for knowledge transfer in a group setting, the network comprising:

- *A plurality of participant workstations, each programmed to provide a participant work area and having at least one corresponding participant input-device, each of the participant input-devices being adapted to create data structures defining participant images that are then included on the participant work area;* (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.
- A moderator workstation, programmed to provide a moderator work area and comprising at least one moderator input-device, the at least one moderator input-device being adapted to: create data structures defining moderator images that are then included on the moderator work area, and to select moderator images that are then simultaneously included on each of the plurality of participant work areas; and collision-correction functionality; (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25) Hamilton teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines.
- Wherein each participant workstation displays images placed on the shared work area by the moderator superimposed on images placed on the participant public work area; wherein the participant work area comprises a participant public scroll and a participant private scroll, the participant public scroll comprising data structures defining images placed on the shared work area and the participant's public work area; (Hamilton Figure 1

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and column 3, lines 1-67) Hamilton teaches a classroom setting where the participants can discuss with each other the images verbally while viewing their individual work areas. Hamilton also teaches the students send information to the teacher, which can then be shared with other students or the entire group.

- Wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area; wherein a participant must decide to permit an image to be selected by the moderator input-device before it can be included on the moderator work area; wherein the network can be used in a group mode and a standalone mode; wherein every user positioned to use a workstation can hear every other user positioned to use any other workstation. (Hamilton column 5, lines 33-42) Hamilton teaches an alternative configuration where the participant terminals are not computers and all of the processing is done solely in the teacher's computer. Hamilton also teaches the group setting in which each user can discuss openly the meeting with every other participant

Hamilton fails to expressly disclose:

- Wherein the moderator work area comprises a shared work area and a moderator private work area, and each participant work area comprises a participant public work area and a participant private work area;

McArdle discloses a process of storing a plurality of pages that contain annotations within a list of pages in a file (McArdle figures 10-22). McArdle also teaches the public and private work areas for each user on the system (Figure 4). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the teacher system of Hamilton to incorporate the shard and private areas and tab pages for storing information with annotations of McArdle, in order to obtain a system that is able to provide

a user with a page by page description of the meeting event. One would have been motivated to make such a combination to provide the user with a list of pages containing graphic, text and drawing annotations in the order they happen as taught by McArdle.

With respect to **dependent claims 98 and 99**, Hamilton teaches [the network where a participant can implement a decision to permit an image placed on a participant work area to be viewed at another workstation by setting a flag and transmitting to another station.] (Hamilton column 10, lines 43-54) Hamilton teaches the use of flags to determine whether the user wants to communicate the information to a specific workstation, the teacher or all other stations.

With respect to **dependent claims 100 and 101**, Hamilton teaches [the network where the collision-correction functionality comprises functionality permitting toggling between a plurality of view modes and the relocation of images in the participant work area.] (Hamilton column 6, lines 10-25) Hamilton teaches that each student workstation is represented by an icon on the teacher workstation. The teacher can toggle between other users or back to the teacher's own area. Hamilton also teaches the users are working on an image and the changes are appearing simultaneously. If an image so overlapped the user can manually relocate the image to another location. The collision correction functionality would be performed by the user or teacher as they can see the obvious overlap instantaneously (Hamilton column 3, lines 47-67).

In regard to **Independent claim 108**, Hamilton teaches a system for knowledge transfer in a group setting, the system comprising:

- A plurality of participant work stations, each comprising: at least one participant display device; at least one input device; a participant public scroll; and a participant private scroll;
- The at least one participant input device being adapted to permit the participant to create data structures on the participant public scroll and participant private scroll defining images that are displayed on the at least one participant display device;
- A moderator work station, comprising: at least one moderator display device; at least one moderator input-device; a moderator public scroll; the at least one moderator input device being adapted to create data structures on the moderator public scroll and each of the participant public scrolls defining images that are displayed on the at least one moderator display device and on each of the at least one participant display devices.

Hamilton fails to expressly disclose:

- Participant and Moderator private and public scroll areas.

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also shows that the scroll can be used to scroll through just the private tab areas and the private areas. The tabs represent a set of pages that are shared by one user to all users, which can incorporate links to other pages such as the moderator pages (McArdle figure 10-22). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would

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have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle.

With respect to **dependent claim 109-111**, as indicated from the above discussion, Hamilton in view of McArdle teaches/discloses every element of claim 108.

Hamilton fails to expressly disclose the [*system where the moderator work station further comprises a moderator private and public scroll, and wherein the at least one moderator input device is further adapted to create data structures on the moderator private and public scroll that are displayed on the at least one moderator display device and to select participant images from any of the plurality of participant work areas that are then included on the moderator work area.*]

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also shows that the scroll can be used to scroll through just the private tab areas and the private areas. The tabs represent a set of pages that are shared by one user to all users, which can incorporate links to other pages such as the moderator pages (McArdle figure 10-22). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars and public and private areas of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the tab pages of the display and to share images among all of the participants. One would have been motivated to

make such a combination to provide the ability to scroll the display areas in a conventional manner and to share objects as taught by McArdle.

With respect to **dependent claims 112-117**, as indicated in the above discussion, Hamilton in view of McArdle teach/disclose every element of claim 108.

Hamilton fails to expressly disclose the [*system where at least some of the scrolls comprise at least one practically infinite, scrollable panel, and where the size of the panels can be increased, display adjacent panels on the scroll, where the data structures on the panels are objects and the objects are organized as linked lists*].

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also discloses a tab pane associated with the private and public areas in the GUI. A tab is created for each window. The number of tabs that can be entered is limited only by the application. McArdle shows the tabs can be scrolled and the work areas can be increased and decreased in size. McArdle also shows the panels contain objects and the panels are linked list of pages (McArdle column 6, lines 1-67). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

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Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle.

With respect to **dependent claims 118-120**, as indicated in the above discussion, Hamilton in view of McArdle teach/disclose every element of claim 117.

Hamilton fails to expressly disclose/teach the [*system where objects placed on a scroll can be replayed by displaying corresponding images as the objects are added to the display one object at a time; in the order they were added to the scroll; in the order they were added to a given pane]*]

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also discloses a tab pane associated with the private and public areas in the GUI. A tab is created for each window. The number of tabs that can be entered is limited only by the application. McArdle shows the tabs can be scrolled and the work areas can be increased and decreased in size. McArdle also shows the panels contain objects and the panels are linked list of pages (McArdle column 6, lines 1-67). McArdle also teaches the pages are added as a user enters information into a virtual page. The virtual page is added to the other users private areas as well as the shared area. McArdle teaches the user use

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of a mass storage device to record the actions of the meeting to allow a user to disconnect and then reconnect at a later date and review the information as it occurred (McArdle column 7, lines 32-52 and column 16, lines 1-67). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of McArdle, in order to obtain a system that is able to provide a user with GUI controls to review the information previously presented. One would have been motivated to make such a combination to provide the ability to scroll the previously entered information in a conventional manner as taught by McArdle.

With respect to **dependent claim 121**, Hamilton teaches [*the system of where each of the participant input devices can only create data structures that are placed on the participant's scrolls unless a moderator input device is used to permit otherwise.*] (Hamilton column 3, lines 1-67) Hamilton teaches the control of placing images on one or all of the participant's areas are controlled by the user and the teacher.

With respect to **dependent claims 122-123**, as indicated in the above discussion, Hamilton in view of McArdle teach/disclose every element of claim 117.

Hamilton fails to expressly disclose/teach the [*system where data structures included on the moderator public scroll are automatically placed on each of the participant public scrolls, and where the participant station can be the moderator station.*]

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McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. McArdle also shows that the scroll can be used to scroll through just the private tab areas and the private areas. The tabs represent a set of pages that are shared by one user to all users, which can incorporate links to other pages such as the moderator pages (McArdle figure 10-22). McArdle teaches the use of the virtual page and when a user makes annotations to the virtual page the images are automatically copied to the participants tab pages (McArdle column 16, lines 1-67). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars and automatic copying of information to the scroll tabs in the public and private areas of McArdle, in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display. One would have been motivated to make such a combination to provide the ability to copy and scroll the display areas in a conventional manner as taught by McArdle.

With respect to **dependent claims 124**, as indicated in the above discussion, Hamilton in view of McArdle teach/disclose every element of claim 123.

Hamilton fails to expressly disclose [*the system where a moderator input device can cause a participant workstation to become the moderator input device by passing a security token.*]

McArdle teaches the use of a state variable within the meeting manager of each participant workstation that points to the arbitrator workstation. The arbitrator station is charged with the task of controlling the access to the creation of meeting information. The arbitrator status can be changed to any one of the workstations by changing a state variable (McArdle column 8, lines 31-67). McArdle and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to state variable of McArdle, in order to obtain a system that is able to provide a user with GUI controls control the moderator location to a participant workstation. One would have been motivated to make such a combination to provide the ability to one and only one arbitrator for a conference as taught by McArdle.

**References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.**

10. **Claims 14, 55-56, 58, 59, 74, 75, 78, 89, 90, 92, 93, 103, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al (hereinafter Hamilton) U.S. Patent No. 5,176,520 issued Jan. 5, 1993, and filed Apr. 17, 1990, and in view of McArdle et al (hereinafter McArdle) U.S. Patent No. 5,859,974 issued Jan. 12, 1999, and filed June 8, 1996, and further in view of Smith et al (hereinafter Smith) U.S. Patent No. 5,107,443 issued Apr. 21, 1992, and filed Sept. 7, 1988.**

In regard to **Independent claim 14**, Hamilton teaches a system for knowledge transfer in a group setting, the system comprising:

- *A plurality of participant work stations, each comprising: a participant work area; a participant input-device adapted to define participant images that are then included on the corresponding participant work area, the participant images being able to be defined by at least text objects, draw objects, erase objects, and bitmap objects; a participant display element adapted to display the corresponding participant work area;* (Hamilton Figure 1, 2a-2c and column 6, lines 10-25) Hamilton teaches a group setting with each participant having an input device and Hamilton teaches that each user can draw or write on the screen which represents a participant image.
- *A moderator work station, comprising: a moderator work area; at least one moderator input-device adapted to define moderator images that are then included on the moderator work area and on each of plurality of participant work areas, the moderator images being able to be defined by at least text objects, draw objects, erase objects, and bitmap objects; a moderator display element adapted to display the moderator work area; wherein the moderator input-device is further adapted to select participant images from any of the plurality of participant work areas that are then included on the moderator work area;* (Hamilton column 3, lines 45-67) Hamilton teaches the teacher can share an image sent to the teacher workstation from a student's workstation with two or more workstations within the group. Hamilton also teaches a teacher area that contains icons that represent each user area that can be viewed separately. Hamilton also teaches that the teacher can select which user to share images with all or a subset of the participant machines (Hamilton Figure 1, 2a-2c and column 3, lines 1-67 and column 6, lines 10-25).

Hamilton fails to expressly disclose:

- *Bitmap objects in participant and moderator work areas.*

- *Wherein the work areas comprise a scroll of panels, each panel being permitted to have a size exceeding that which can be displayed on the display elements; wherein the plurality of display elements are substantially located to permit a user to simultaneously view one of the display elements and to hear substantially every other user that is viewing another of the display elements; and wherein additional participant work stations can be added to the system while the system is in use.*

McArdle teaches a collaboration system that contains private and public workspaces that are displayed in a user interface. McArdle also shows (figures 2-4 and column 5, lines 58-67 and column 6, lines 1-35) a horizontal and vertical scroll bar that allows the user to scroll to the occluded areas not readily visible to the user. Smith also fails to expressly disclose the scroll areas in the private and public areas. However, Smith teaches a collaborative system that allows users to communicate in real time (column 7, lines 22-35) in which, bitmap objects are created and stored (figure 6a and column 15, lines 38-67), for the purpose of providing a model for displaying objects in a shared space.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle, Smith and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the scroll bars of Smith, and the bitmap objects of McArdle in order to obtain a system that is able to provide a user with GUI controls to scroll the unseen areas of the display that contain bitmap objects. One would have been motivated to make such a combination to provide the ability to scroll the display areas in a conventional manner as taught by McArdle and because of the applicability of the Smith system to any shared window system or any other shared workspace system (column 26, lines 1-17) as taught by Smith.

With respect to dependent claims 55, 56, 58, 74, 75, 78, 89, 90, 92, 103 and 104 as indicated in the above discussion, Hamilton in view of McArdle teaches/discloses every element of claim 41, 61 and 81, and 97.

Hamilton fails to expressly teach/disclose [*the network comprising collision-avoidance functionality that does not have a corresponding location to any location on the shared area; and where the participant work area comprises a participant public work area and a private work area, wherein images placed on the participant's public work area are generally displayed superimposed on images on the shared work area.*]

Smith teaches a collaborative system that allows users to communicate in real time (column 7, lines 22-35) in which, the work area is comprised of public and private work areas and each object has access privileges with different levels, for the purpose of providing a mechanism for displaying objects in a shared space that do not allow users to move or put objects over the controlled object space without access rights (Smith column 10, lines 1-67 and column 11, lines 1- 20). Smith also shows an area controlled by a user that are not private by have limited access rights to certain users which is in effect a margin area that prevents others from putting images within the space but the area is still visible to everyone (Smith figure 9a and 9b and column 19, lines 18-51). Smith and Hamilton are analogous art because they are from the same field of endeavor of collaborative systems that unite users on a network and allow the sharing of images in private and shared workspaces.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of Smith and Hamilton before him at the time of the invention was made, to modify the system of Hamilton to incorporate the access right of Smith, in order to obtain a system that is able to provide objects in a display that are not overlapped with another users image. One would have been motivated to make such a combination because of the applicability of the Smith system to any shared window system or any other shared workspace system (column 26, lines 1-17) as taught by Smith.

With respect to **dependent claim 59**, as indicated in the above discussion, Hamilton in view of McArdle in further view of Smith teaches/discloses every element of claim 58.

*Claim 59 reflects the network where the participant work area comprises a participant public scroll and a participant private scroll, wherein data structures corresponding to images placed on the shared work area and to images placed on the participant public work area are placed on the participant public scroll as in claim 41, and is rejected along the same rationale.*

With respect to **dependent claim 93**, as indicated in the above discussion, Hamilton in view of McArdle in further view of Smith teaches/discloses every element of claim 92.

*Claim 93 reflects the network where the participant work area comprises a participant public scroll and a private scroll, and wherein data structures defining the images placed on the shared work area and the participant's public work area are placed on the participant public scroll as recited in claim 41, and is rejected along the same rationale.*

**References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.**

9. **Claims 25-26, 47 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al (hereinafter Hamilton) U.S. Patent No. 5,176,520 issued Jan. 5, 1993, and filed Apr. 17, 1990, and in view of McArdle et al (hereinafter McArdle) U.S. Patent No. 5,859,974 issued Jan. 12, 1999, and filed June 8, 1996, and further in view of Barbara et al (hereinafter Barbara) U.S. Patent No. 5,524,240 issued Jun. 4, 1996, and filed Oct. 17, 1994.**

With respect to **dependent claim 25, 26, 47 and 66** as indicated in the above discussion, Hamilton in view of McArdle teaches/discloses every element of claim 23.

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Hamilton in view of McArdle fails to expressly teach/disclose [*the network where the images are stored as at least one record in a relational database and as one record in an indexed database.*]

Barbara discloses a system, which includes an indexed database and relational database for the purpose of storing hand written images (Barbara Figure 7b and column 2, lines 53-67).

Barbara and McArdle and Hamilton are analogous art because they are from the same field of endeavor of drawing images and manipulating data objects.

Accordingly, It would have been obvious to one of ordinary skill in the art, having the teachings of McArdle, Barbara and Hamilton before him at the time of the invention was made, to modify the teaching system of Hamilton to incorporate the scroll bars of Smith, and the databases of Barbara in order to obtain a system that is able to store the objects for retrieval at a later date. One would have been motivated to make such a combination to provide the ability to recover annotations from a database with relationships in tact as taught by Barbara.

**References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.**

***Allowable Subject Matter***

11. Claims 33, 36, 38, 39, 40, 54, 57, 60, 61, 73, 76, 77, 79, 80, 88, 91, 94, 95, 96, 102, 105, 106 and 107 allowed.
  
12. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 33, 54, 73 and 88, and 102, Hamilton in view of McArdle, and in further view of Smith teach/disclose the movement of images in a collaborative workspace that

have private and public areas that are scrollable by the users. The prior art also teaches access rights to objects preventing overwrites in those areas.

The prior art fails to disclose or suggest the automatic relocation of images that occur automatically when a collision of two images in the same location on the workspace occurs.

Accordingly, claims 33, 54, 73, and 88 are allowable subject matter.

With respect to **claims 36, 38, 39, 40, 57, 60, 61, 76, 77, 79, 80, 91, 94, 95, 96, 105, 106 and 107**, Hamilton in view of McArdle and in further view of Smith teach/disclose systems for placing images in public and shared workspaces and a method of restricting access to an object in a certain location on the screen.

Prior art fails to disclose or suggest placing a specific type of image, namely a footnote, in the work areas (public or private or shared) that link the images to an object in another location that is not in the shared work area. Prior art also fails to disclose or suggest an image in a collaborative workspace and in a private space that is a hyperlink to a non-shared space.

Accordingly, claims 36, 38, 39, 40, 57, 60, 61, 76, 77, 79, 80, 91, 94, 95, 96, 105, 106 and 107 are allowable subject matter.

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,230,171 B1 to Pacifici et al issued May 8, 2001, and filed Aug. 29, 1998 and discloses a system for shared HTML documents.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Theriault whose telephone number is (571) 272-5867. The examiner can normally be reached on M-F 7:00 - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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SBT

BA HUYNH  
PRIMARY EXAMINER